CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, LLC

CTEH® Project #40442
West Fertilizer Plant Explosion
Summary of Air Monitoring Results
April 25, 2013 07:00

This data report discusses real-time air monitoring data collected between 4/24/2013 04:00 and 4/25/2013 04:00 in support of remediation operations conducted near the West Fertilizer Plant Explosion in West, TX.

Real-time air monitoring was conducted for VOCs, ammonia (NH_3), nitrogen dioxide (NO_2), percent of the lower explosive limit (LEL) and oxygen (O_2) using remote-telemetering RAESystems® AreaRAEs and hand-held instruments such as the RAESystems® MultiRAE.

Tables 1 and 2 (below) display data summaries for hand-held and AreaRAE instruments, respectively. Site maps and charts are available as attachments.

Table 1: Hand-held Real-time Air Monitoring Summary[1]
April 24, 2013 04:00 – April 25, 2013 04:00

Analyte	Instrument	Number of Readings	Number of Detections	Average of Detections	Range of Detections
Work Area					
VOC	MultiRAE	2	1	0.1 ppm	0.1 ppm

[1]*Please note: The data displayed here has not undergone complete QA/QC analysis and is presented in a preliminary format.*
PPM = Parts Per Million

Table 2
Stationary AreaRAE Monitoring Stations Data Logged
4/24/2013 04:00 to 4/25/2013 16:00

Unit	Analyte	Count of Readings	Count of Detections	Average of Detections	Max Detection
AR13	LEL	5563	0	NA	< 1 %
	NH3	5563	0	NA	< 1 ppm
	NO2	5563	0	NA	< 0.1 ppm
	O2	5563	5563	20.9 %	20.9 %
	VOC	5563	566	0.1 ppm	0.2 ppm
AR14	LEL	4940	0	NA	< 1 %
	NH3	4940	0	NA	< 1 ppm
	NO2	4940	47	0.1 ppm	0.2 ppm
	O2	4940	4940	20.9 %	21.3 %
	VOC	4940	0	NA	< 0.1 ppm
AR16	LEL	4764	0	NA	< 1 %
	NH3	4764	0	NA	< 1 ppm
	NO2	4764	0	NA	< 0.1 ppm
	O2	4764	4764	20.9 %	21.1 %
	VOC	4764	0	NA	< 0.1 ppm
AR17	LEL	5499	0	NA	< 1 %
	NH3	5499	0	NA	< 1 ppm
	NO2	5499	0	NA	< 0.1 ppm
	O2	5499	5499	21.1%	21.4 %
	VOC	5499	1	0.1 ppm	0.1 ppm
AR18	LEL	5007	0	NA	< 1 %
	NH3	5007	0	NA	< 1 ppm
	NO2	5007	0	NA	< 0.1 ppm
	O2	5007	5007	21.1 %	21.5 %
	VOC	5007	0	NA	< 0.1 ppm

[1] *The data in this table may include electronic drift. Drift is defined as any interference in the electrochemical sensor's ability to accurately report the concentration of a chemical in the atmosphere. Humidity and temperature changes throughout the monitoring period are typical sources of drift. Additionally, the data has not undergone complete QAQC as of this time.*

CTEH® CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, LLC

Appendix

Air Monitoring Zone Classifications[1] April 25, 2013

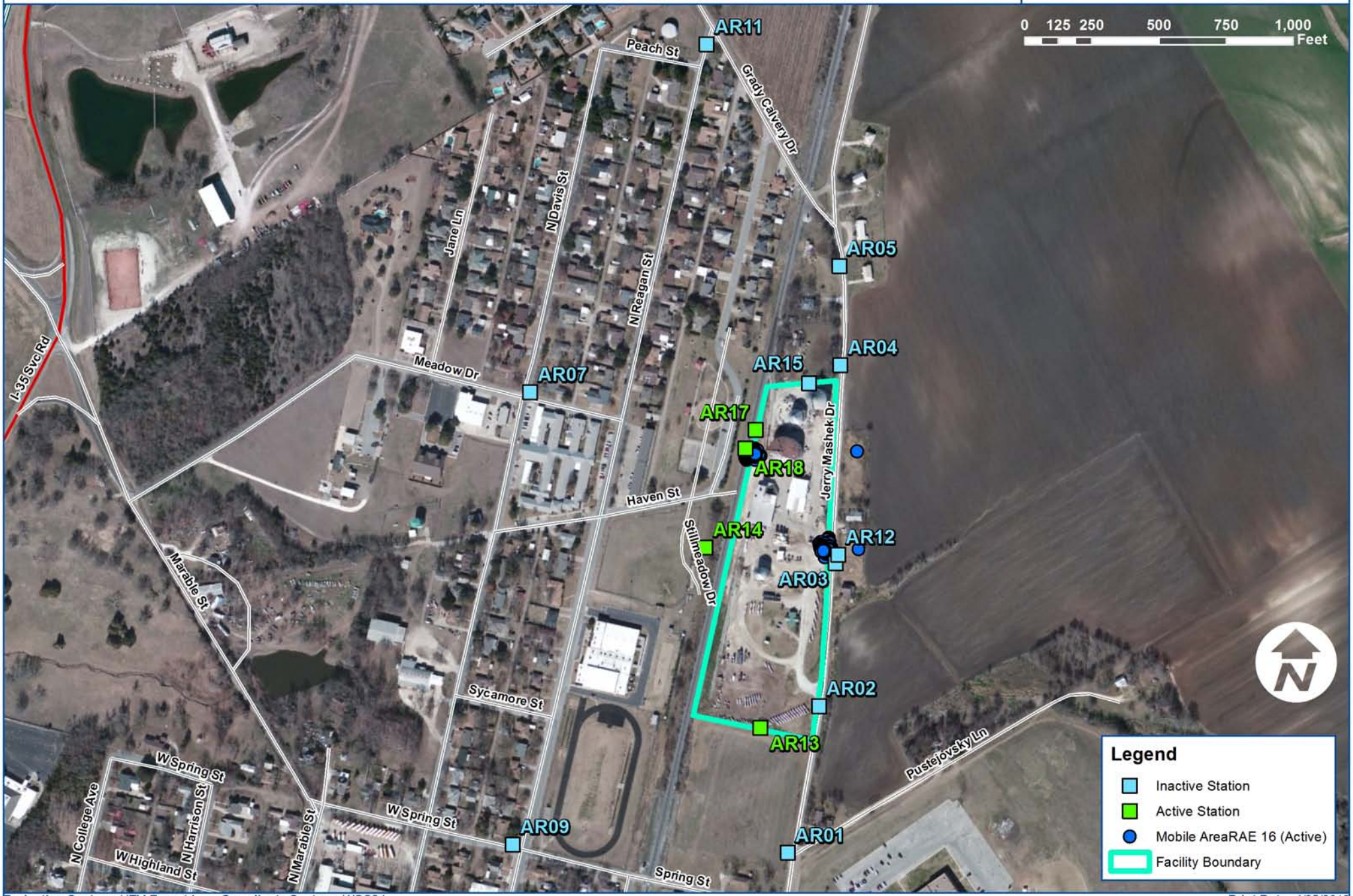
Project: 40442
Client: OMI
City: West, TX
County: McLennan

[1] All monitoring performed outside of the Work Area boundary and the Rail Road right of way is considered Community Monitoring.

Projection System: *UTM Zone 14* Coordinate System: *WGS84* Print Date: *4/25/2013*

AreaRAE Monitoring Station Locations 4/18/2013 to 4/25/2013

Project: 40442
Client: OMI
City: West, TX
County: McLennan



Projection System: *UTM Zone 14* Coordinate System: *WGS84* Print Date: *4/25/2013*

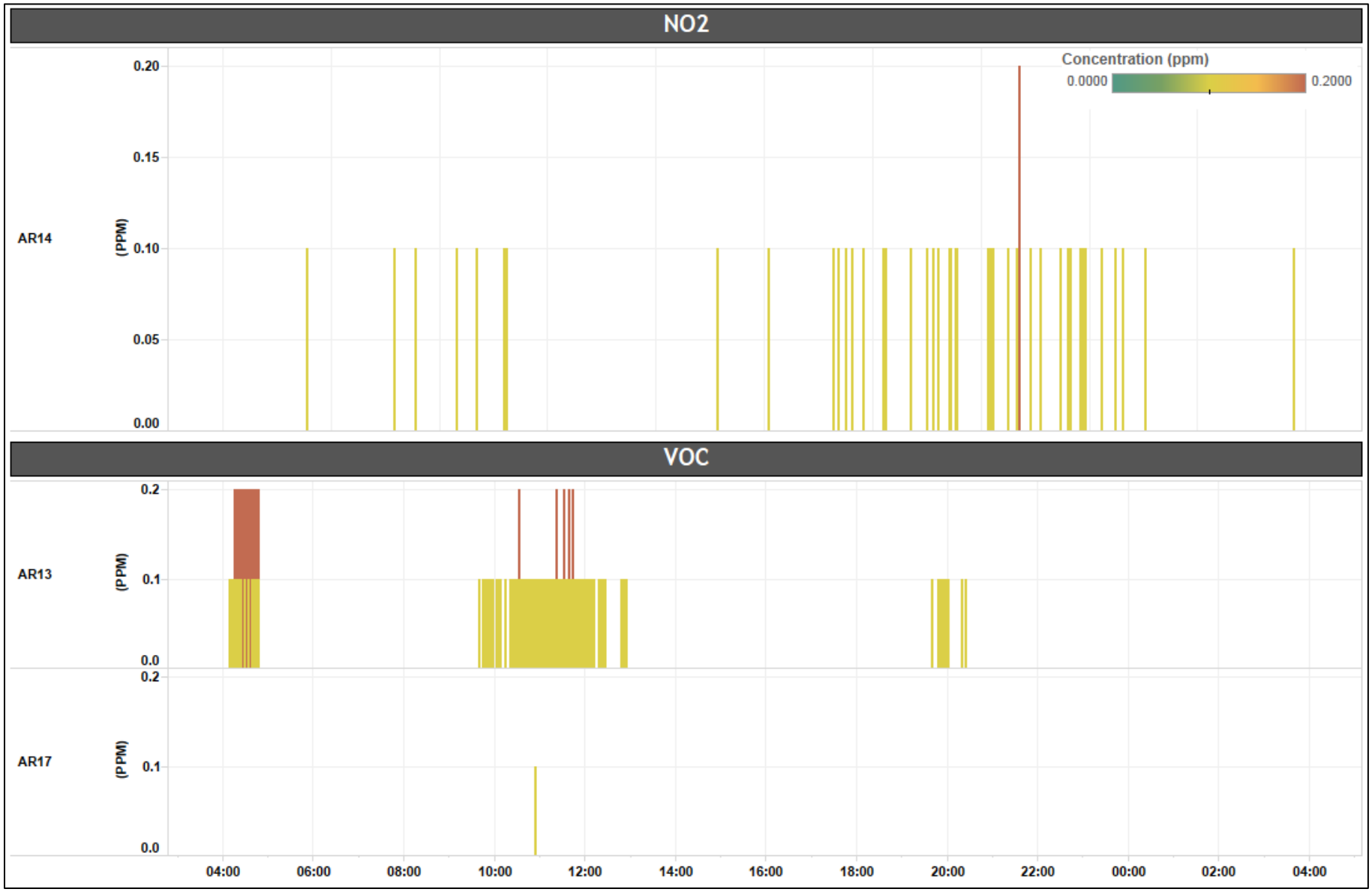
Manually Logged VOC Real-Time Readings 4/24/2013 0:400 to 4/25/2013 04:00

Project: 40442
Client: OMI
City: West, TX
County: McLennan

Projection System: *UTM Zone 14* Coordinate System: *WGS84* Print Date: *4/25/2013*

CTEH CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, LLC

AreaRAE Detections
4/24/2013 04:00 to 4/25/2013 04:00

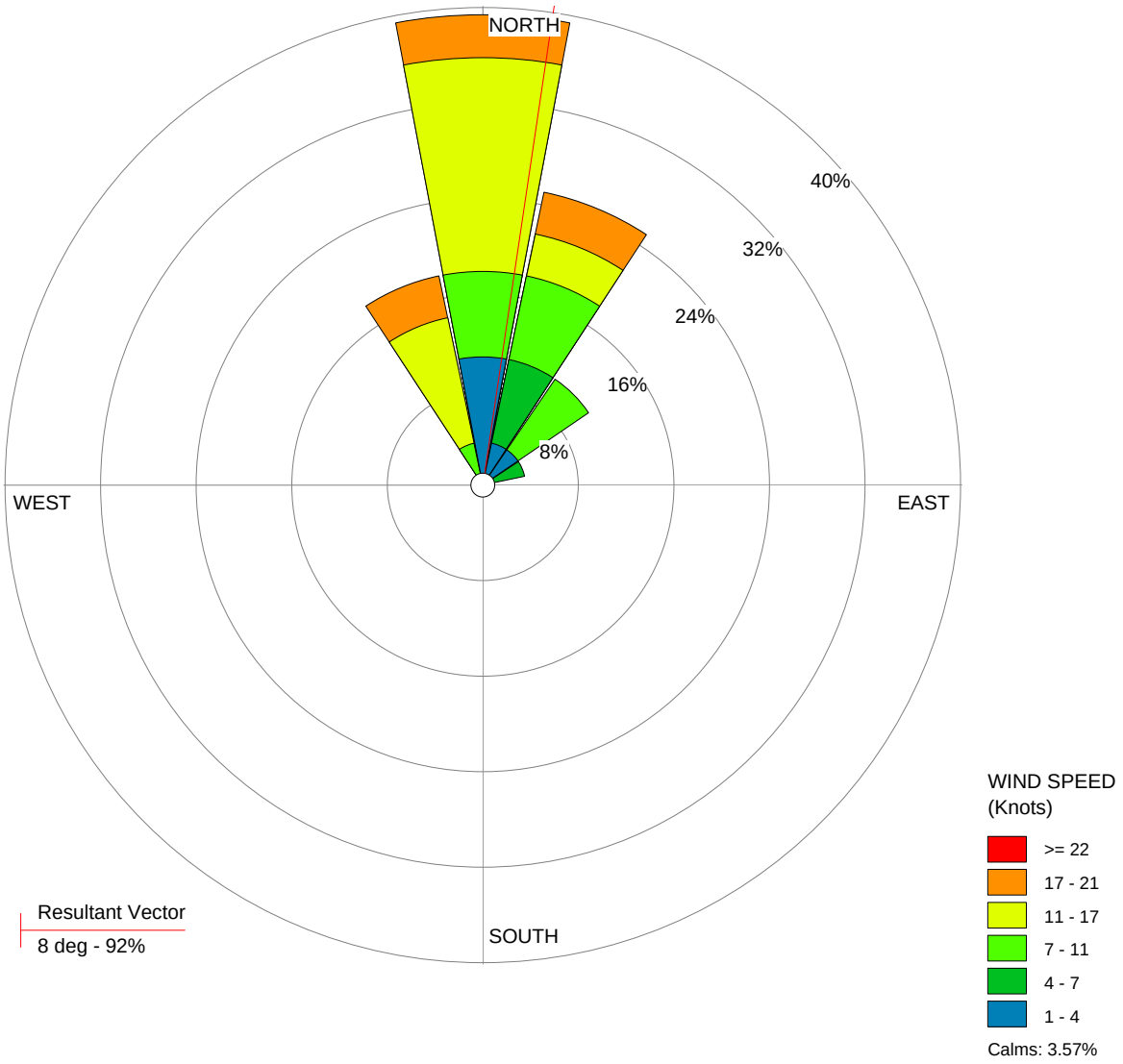


WIND ROSE PLOT:

Wind Speed and Direction 4/24/2013 04:00 to 4/25/2013 04:00
West, Tx

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

Met Station: KACT Waco, TX

COMPANY NAME:

CTEH

MODELER:

Jason Callahan

CALM WINDS:

3.57%

AVG. WIND SPEED:

10.07 Knots

PROJECT NO.:

40442 - OMI